

L Number	Hits	Search Text	DB	Time stamp
1	1	'5252743'.pn.	USPAT	2004/02/22 17:37
2	1	'5605662'.pn.	USPAT	2004/02/22 17:40
3	1	'5653939'.pn.	USPAT	2004/02/22 17:40
4	1	'5858666'.pn.	USPAT	2004/02/22 17:41
5	1	'6187164'.pn.	USPAT	2004/02/22 17:41
6	0	microelectromagnetic adj2 core\$	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/02/22 17:42
7	1	micro adj2 electromagnetic adj2 core\$	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/02/22 17:43
8	131	micro adj2 electromagnetic	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/02/22 17:43
9	42	(micro adj2 electromagnetic) and magnetic adj2 field\$	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/02/22 17:44

FILE 'HOME' ENTERED AT 17:51:09 ON 22 FEB 2004

=> b ca

COST IN U.S. DOLLARS

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FILE 'CA' ENTERED AT 17:51:18 ON 22 FEB 2004

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FILE COVERS 1907 - 19 Feb 2004 VOL 140 ISS 9

FILE LAST UPDATED: 19 Feb 2004 (20040219/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s electromagnetic?

L1 76201 ELECTROMAGNETIC?

=> s l1 and micro(w)electromagnetic(w)core?

116525 MICRO

74768 ELECTROMAGNETIC

279276 CORE?

0 MICRO(W)ELECTROMAGNETIC(W)CORE?

L2 0 L1 AND MICRO(W)ELECTROMAGNETIC(W)CORE?

=> s l1 and micro(w)electromagnetic

116525 MICRO

74768 ELECTROMAGNETIC

20 MICRO(W)ELECTROMAGNETIC

L3 20 L1 AND MICRO(W)ELECTROMAGNETIC

=> s l3 and (ligand? or antibod? or antigen? or hapten? or receptor?)

330364 LIGAND?

384671 ANTIBOD?

327824 ANTIGEN?

11845 HAPTEN?

629668 RECEPTOR?

L4 2 L3 AND (LIGAND? OR ANTIBOD? OR ANTIGEN? OR HAPTEN? OR RECEPTOR?)

=> d all 1-2

L4 ANSWER 1 OF 2 CA COPYRIGHT 2004 ACS on STN

AN 136:291322 CA

ED Entered STN: 02 May 2002

TI Individually addressable \*\*\*micro\*\*\* - \*\*\*electromagnetic\*\*\* unit  
array chips in horizontal configurations

IN Wu, Lei; Wang, Xiaobo; Cheng, Jing; Yang, Weiping; Zhou, Yuxiang; Liu,  
Litian; Xu, Junquan  
PA Aviva Biosciences Corporation, USA  
SO PCT Int. Appl., 132 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
IC ICM G01N033-543  
CC 9-1 (Biochemical Methods)  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002031505	A1	20020418	WO 2001-US30848	20011003
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2002011363	A5	20020422	AU 2002-11363	20011003
	EP 1325333	A1	20030709	EP 2001-979392	20011003
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	CN 1348103	A	20020508	CN 2001-136350	20011010
PRAI	US 2000-685410	A	20001010		
	WO 2001-US30848	W	20011003		
AB	The present invention provides ***electromagnetic*** chips and ***electromagnetic*** biochips having arrays of individually addressabl micro-emu, as well as methods of utilizing these chips for directed manipulation of micro-particles and micro-structures such as biomols. and chem. reagents.				
ST	addressable ***micro*** ***electromagnetic*** array chip				
IT	horizontal configurationnn				
IT	Prion proteins				
	RL: ARU (Analytical role, unclassified); ANST (Analytical study) (PrPSc; individually addressable micro-emu array chips in horizontal configurations)				
IT	Bond				
	(covalent; individually addressable micro-emu array chips in horizontal configurations)				
IT	Affinity				
	Cell				
	Ceramics				
	Diffusion				
	Electric current				
	Electromagnetism				
	Etching				
	Immobilization, molecular or cellular				
	MOSFET (transistors)				
	Magnetic field				
	Microarray technology				
	Microarray technology				
	Molecular recognition				
	Nucleic acid hybridization				
	Parasite				
	Photolithography				
	(individually addressable micro-emu array chips in horizontal configurations)				
IT	Agglutinins and Lectins				
	Aldehydes, analysis				

\*\*\*Antibodies\*\*\*

Carbodiimides  
Carbohydrates, analysis  
DNA

\*\*\*Ligands\*\*\*

Lipids, analysis  
Nucleic acids  
Peptides, analysis  
Proteins  
RNA

\*\*\*Receptors\*\*\*

RL: ARU (Analytical role, unclassified); ANST (Analytical study)  
(individually addressable micro-emu array chips in horizontal  
configurations)

IT Glass, uses

RL: DEV (Device component use); USES (Uses)  
(individually addressable micro-emu array chips in horizontal  
configurations)

IT Plastics, uses

RL: DEV (Device component use); USES (Uses)  
(individually addressable micro-emu array chips in horizontal  
configurations)

IT Diffusion

Magnetic field effects  
(magnetophoresis; individually addressable micro-emu array chips in  
horizontal configurations)

IT 58-85-5, Biotin 7439-89-6, Iron, analysis 7723-14-0, Phosphorus,  
analysis 7758-94-3, Ferrous chloride 7786-81-4, Nickel sulfate  
9013-20-1, Streptavidin

RL: ARU (Analytical role, unclassified); ANST (Analytical study)  
(individually addressable micro-emu array chips in horizontal  
configurations)

IT 7429-90-5, Aluminum, uses 7440-06-4, Platinum, uses 7440-21-3,  
Silicon, uses 7440-22-4, Silver, uses 7440-31-5, Tin, uses  
7440-32-6, Titanium, uses 7440-47-3, Chromium, uses 7440-50-8, Copper,  
uses 7440-57-5, Gold, uses 7631-86-9, Silicon dioxide, uses  
12033-89-5, Silicon nitride, uses

RL: DEV (Device component use); USES (Uses)  
(individually addressable micro-emu array chips in horizontal  
configurations)

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD  
RE

(1) Fujiwara; US 5252493 A 1993 CA

(2) Heller; US 5605662 A 1997 CA

L4 ANSWER 2 OF 2 CA COPYRIGHT 2004 ACS on STN

AN 134:249191 CA

ED Entered STN: 19 Apr 2001

TI Single point \*\*\*micro\*\*\* - \*\*\*electromagnetic\*\*\* unit array chip,  
\*\*\*electromagnetic\*\*\* biochip, and their applications

IN Zhou, Yuxiang; Liu, Litian; Chen, Ken; Chen, Depiao; Wang, Jia; Liu,  
Zewen; Tan, Zhimin; Xu, Junquan; Zhu, Xiaoshan; He, Xuezhong; Xie,  
Wenzhang; Li, Zhiming; Liu, Xiumei

PA Qinghua University, Peop. Rep. China

SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 44 pp.  
CODEN: CNXXEV

DT Patent

LA Chinese

IC ICM H01L027-00

ICS G01N033-53; C12Q001-00

CC 9-1 (Biochemical Methods)

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE

PI	CN 1267089	A	20000920	CN 1999-120320	19990916
	AU 9960457	A1	20001004	AU 1999-60457	19990917
	US 6355491	B1	20020312	US 1999-399299	19990917
	EP 1207959	A1	20020529	EP 1999-973783	19990917
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
	JP 2003521674	T2	20030715	JP 2000-604947	19990917
	TW 496775	B	20020801	TW 2000-89118713	20000913
	US 2002022276	A1	20020221	US 2001-955343	20010918
PRAI	CN 1999-104113	A	19990315		
	CN 1999-120320	A	19990916		
	US 1999-399299	A	19990917		
	WO 1999-US21417	W	19990917		
AB	<p>The ***electromagnetic*** chip consists of substrate, micro-emu, and device for grating certain unit and producing magnetic field in it. The ***electromagnetic*** biochip consists of substrate, micro-emu, device for grating certain unit and producing magnetic field in it, and functional layer on the surface of chip for immobilizing ***ligands*** (such as DNA, RNA, albumen, ***antibody***, cell, etc.). The functional layer is made of material contg. functional groups of aldehyde, amide, succinimide ester, ***antibody***, or agglutinin. The chips can be used in directional control of biomols., chem. reagents, etc. Biomols. can be controlled, synthesized, and released at certain direction by controlling the ***electromagnetic*** fields of the units in array and using biomols. treated by magnetic modification, thus the sensitivity can be increased and time can be shortened for biochem. anal. and chem. anal. The usage of chips can decrease the damage for biomols. and improve the reproducibility of anal. results.</p>				
ST	***micro*** ***electromagnetic*** array chip biochip				
IT	Apparatus				
	( ***Electromagnetic*** biochip; single point micro-emu array chip, ***electromagnetic*** biochip, and applications)				
IT	Analysis				
	(biochem.; single point micro-emu array chip, ***electromagnetic*** biochip, and applications)				
IT	Analysis				
	(chem. anal; single point micro-emu array chip, ***electromagnetic*** biochip, and applications)				
IT	Amide group				
	Biochemical molecules				
	Cell				
	***Electromagnetic*** field				
	Formyl group				
	Functional groups				
	Immobilization, biochemical				
	Magnetic field				
	(single point micro-emu array chip, ***electromagnetic*** biochip, and applications)				
IT	Agglutinins and Lectins				
	Albumins, uses				
	***Antibodies***				
	DNA				
	***Ligands***				
	RNA				
	RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)				
	(single point micro-emu array chip, ***electromagnetic*** biochip, and applications)				
IT	Reagents				
	RL: PEP (Physical, engineering or chemical process); PROC (Process)				
	(single point micro-emu array chip, ***electromagnetic*** biochip, and applications)				

IT 123-56-8D, Succinimide, esters  
RL: DEV (Device component use); PEP (Physical, engineering or chemical  
process); PROC (Process); USES (Uses)  
(single point micro-emu array chip, \*\*\*electromagnetic\*\*\* biochip,  
and applications)

=> logoff y

COST IN U.S. DOLLARS

SINCE FILE  
ENTRY

TOTAL  
SESSION

FULL ESTIMATED COST

29.57

29.78

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE  
ENTRY

TOTAL  
SESSION

CA SUBSCRIBER PRICE

-2.64

-2.64

STN INTERNATIONAL LOGOFF AT 17:53:32 ON 22 FEB 2004